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BROODING AND REARING CHICKS

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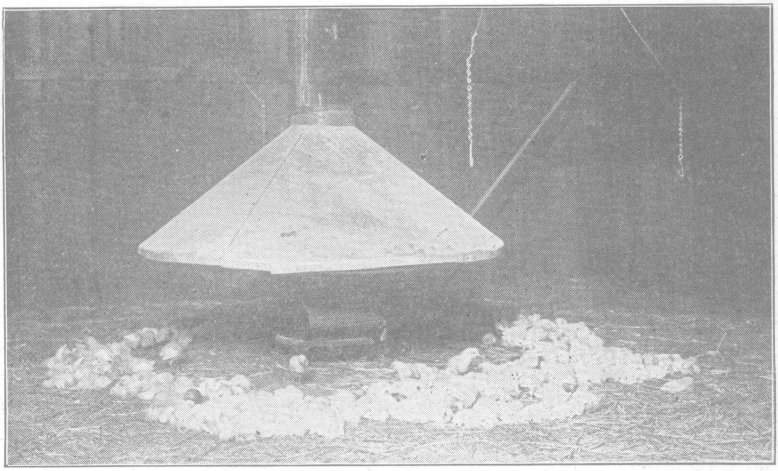
THE most vital stage in the life of the chicken is during the brooding period. Thousands of chicks die every year in Ohio because of carelessness and improper methods of handling during this time. Thousands of others for the same reasons, do not attain the proper growth and are practically worthless as producers when mature. If good, strong, robust, healthy chicks are not grown, one must not expect to make a success with the mature



A coal-burning brooder stove used in a portable colony house is the best brooding device for farm use

stock regardless of how well it is managed. No amount of care after the brooding and rearing period will correct the damage done during this time, and it is up to the poultryman who expects to make a success of his poultry to see that his chicks are given the best of care and handled under the best methods.

The number of chicks to keep under a brooder will vary with the number of chicks desired and also with the experience of the person doing the brooding, where any large number is to be raised. The person who has had a great deal of experience in brooding can undoubtedly handle more in a single brood than a person with little or no experience. The person who has done considerable brooding usually knows how many he can successfully take care of. For

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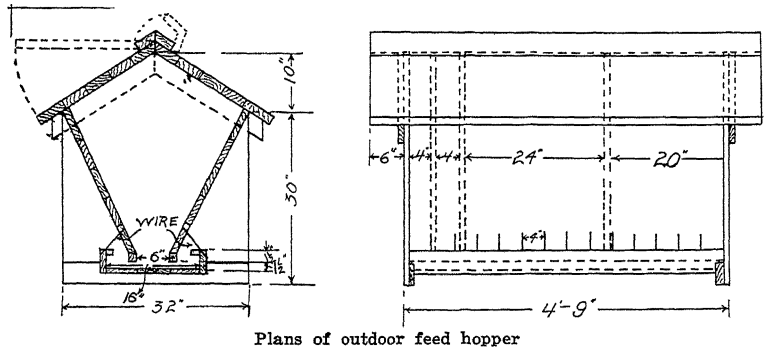
the inexperienced it is the opinion of the writers that not over 300 chicks should be started together, and it is also our opinion that not over 500 chicks should be attempted by even the more experienced. It is a better plan not to "carry all your eggs in one basket." Then, if something does go wrong, as is often the case, so many chicks will not be lost. There is no question but that chicks in small broods do better than those in larger broods. The number of chicks with a hen will vary with the size of the hen but in no case should there be over twenty to a single hen.

PREPARATION OF THE BROODER

The brooder house, if previously used, should be thoroly cleaned, preferably moved to new ground and sprayed with some good coaltar disinfectant or whitewashed, using unslaked lime. The brooder stove should be overhauled and started a day or so ahead of time to see that everything is in working order. This practice also warms and dries the house thoroly by the time the chicks are moved into it.

The floor of the brooder should be covered with about ½ inch of sand, if this is obtainable. Sand is sanitary and furnishes grit in the desired size. Some kind of litter, either clover or fine alfalfa, should be put on the sand to a depth of about 1 inch. This litter hides the grain, thereby inducing exer-



Plans of outdoor feed hopper

cise, makes the house comfortable and dry, and can be easily and quickly changed when necessary. No moldy or spoiled litter should be used, as this will result in a great deal of sickness and death.

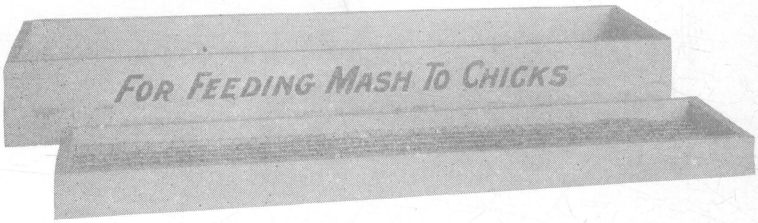
REMOVAL OF CHICKS TO BROODER

The chicks should not be removed from the incubator until at least 48 hours after the last chick is out of the shell. This gives the chicks a chance to dry thoroly and get hardened before being transferred to the brooder. It also gives them a chance to digest the egg yolk which is taken into the body just before they are hatched and which furnishes nourishment for a considerable length of time. To remove the chicks from the incubator as soon as hatched and feed immediately will surely result in digestive troubles. The best time to remove them is in the early afternoon so that they can be watched awhile before darkness comes on. In removing the chicks to the brooder be sure that they are protected from the cold, because a chilling always results in bowel trouble. A box or a basket lined with cloth and a like covering for the top will serve as a means of transferring from incubator to brooder.

When the chicks are removed to the brooder the temperature should be about 100° Fahrenheit, 1 foot from the stove and 2 inches above the floor under the hover. It is also very important that the brooder house be large

enough so that the chicks can get to a cooler temperature during the daytime if they desire. Close confinement in too warm a temperature will result in weak chicks with poor vitality. During the first few nights it is well to confine the chicks comparatively close to the stove so that they cannot get away from the source of heat and crowd in the corners. This can be accomplished by placing a fine mesh wire screen 1 foot high, about 2 feet around the outside of the hover. After the first week the temperature can be gradually decreased. The rate of decreasing the temperature will vary with the weather, but under ordinary conditions a reduction of 5 degrees per week will be satisfactory, beginning at the end of the first week. However, the temperature can be regulated according to the actions of the chicks. Always see that it is warm enough with still plenty of room in which to get away from the heat. Usually no artificial heat will be needed after 8 or 9 weeks.

Providing the weather will permit, the chicks should be out on the ground within 5 or 6 days. The sooner they get on the ground the better will be their health. For the first few days they should be confined close to the house so that they will learn where they belong and where the source of heat is when they get cold. After this they should be allowed to range at will.



Dry mash troughs save labor, prevent waste, and provide a constant supply of feed for the chicks

FEEDING

Feeding is one of the most important points to be considered in brooding. Without the proper feed and a knowledge of how to use this feed, brooding is certain to be a dismal failure. It is the opinion of most poultry authorities that it is practically impossible to raise the best chicks without the use of milk in some of its various forms. Milk not only contains the necessary nutriment for proper growth, but it also has the added power of stimulating the appetite for other foods and is easily and quickly digested. Of all the forms of milk, probably the best two are skimmilk and buttermilk. If neither of these are available from the farm, it is strongly urged that some of the commercial forms be purchased, preferably semi-solid buttermilk. Other forms of commercial milk products obtainable are the various milk powders now being offered.

Milk in the liquid form is more desirable than the dry products, because young chicks relish it more and it seems to have more of a stimulating effect on their appetites. It is also best to use sour milk in preference to sweet milk, because it is slightly more palatable and seems to keep the birds in a healthier condition. Also, sour milk has been found to be more readily and completely digestible. In warm weather it is very difficult to feed sweet milk at all times, because of its rapid souring, and the changing from sweet to sour is very likely to cause digestive troubles.

The first feed given to the chicks should be milk. Either fine commercial chick feed or finely cracked corn and wheat should be given in the litter about

five times daily, making sure that the chicks have to scratch in the litter to get the grain. Exercise is very important and the more the chicks have to work the better off they are. For the first week bran should be kept available in shallow pans at all times. Bran is rich in mineral matter, is bulky and serves as a mild laxative, keeping the chicks in good condition. As the chicks get older the grain feeding can gradually be reduced until only morning and evening scratch feeds are given.

The following is the system of feeding recommended by the Department of Poultry Husbandry as meeting all nutriment requirements and at the same time being simple and easily prepared.

FIRST WEEK

Scratch	*Mash*
50 lbs. finely cracked corn	Wheat bran
40 lbs. finely cracked wheat	
10 lbs. rolled oats	Milk available at all times.

SECOND TO EIGHTH WEEK

Scratch	*Mash*
60 lbs. finely cracked corn	20 lbs. bran
40 lbs. finely cracked wheat	10 lbs. middlings
	10 lbs. cornmeal
	10 lbs. ground oats
	5 lbs. meat scraps or tankage
	1 lb. bone meal

If milk is available at all times eliminate meat scraps or tankage.
If available only part of time reduce meat scraps one-half.

EIGHTH WEEK TO MATURITY

Scratch	*Mash*
200 lbs. cracked corn	200 lbs. bran
100 lbs. oats or wheat	100 lbs. middlings
	100 lbs. cornmeal
	100 lbs. ground oats
	75 lbs. meat scraps
	5 lbs. bone meal

Milk same as for second to eighth week.

Another important food in the raising of chicks is some form of sprouted oats, cabbage, mangels, beets, or green grass. When young, chicks should have this food ground into small particles. Later when on range no green food will be needed if there is a good supply on the range.

Very often there is a supply of infertile eggs from the incubator that can be hard boiled and fed, and when this condition exists they make a very good feed and are relished by the chicks. This can be fed after the first couple of days as long as the supply lasts.

SUMMARY

1. A good brooder house and good equipment are essential for brooding chicks.
2. Do not let the chicks get chilled or get too warm.
3. Do not feed till at least 48 hours old; 70 hours is better.
4. Get the chicks on fresh clean range as soon as possible.
5. Milk is the most important chick feed, and may be fed as the only drink to force consumption.
6. Feed a dry mash from the first week to maturity.
7. Green food should be supplied at all times.